James M. Musser et al. Serial No. 08/160,965 Page 14

APPENDIX A PENDING CLAIMS

- (Reiterated) A vaccine against Streptococcus pyogenes infection, comprising:

 a physiologically acceptable non-toxic vehicle containing a conserved

 cysteine protease.
- 2. (Reiterated) The vaccine of claim 1, wherein said cysteine protease is a streptococcal pyrogenic exotoxin B or fragments or derivatives thereof.
- 3. (Reiterated) The vaccine of claim 1, wherein said cysteine protease is a synthetic peptide.
- 4. (Reiterated) The vaccine of claim 1, wherein said streptococcal infection is selected from the group consisting of pharyngitis, tonsillitis, skin infections, acute rheumatic fever, scarlet fever, post-streptococcal glomerulonephritis and toxic-shock-like syndrome.
- 5. (Reiterated) The vaccine of claim 1, further comprising a streptococcal M protein antigen.
- 6. (Amended) A method of immunizing [humans] mammals against

 Streptococcus pyogenes infection, comprising:

 administering the vaccine f claim 1 to [said] a mammal in an

amount sufficient to confer immunity to a Streptococcus pyogenes infection.

7 (Daissered) The method of claim & suborain said vennine is airen by

(TIDINITINE) THE HISHING OF STRING OF LINES AND INDENIES IN PLANTS OF

parenteral administration.

James M. Musser *et al.* Serial No. 08/160,965 Page 15

- 8. (Reiterated) The method of claim 7, wherein said parenteral administration is selected from a group consisting of subcutaneous administration and intramuscular administration.
- 9. (Reiterated) The method of claim 6, wherein said vaccine is administered orally.
- 10. (Reiterated) The method of claim 6, wherein said Streptococcus pyogenes infection is selected from the group consisting of pharyngitis, tonsillitis, skin infections, acute rheumatic fever, scarlet fever, post-streptococcal glomerulonephritis, sepsis and toxic-shock-like syndrome.
- 11. (Reiterated) The method of claim 6, wherein said vaccine is administered in multiple doses.
- 12. (Amended) A method of immunizing humans against Streptococcus pyogenes infection, comprising:

administering the vaccine of claim 5 to [said] a human in an amount sufficient to confer immunity to a Streptococcus pyogenes infection.

- 13. (Reiterated) The method of claim 12, wherein said vaccine is given by parenteral administration.
- 14. (Reiterated) The method of claim 13, wherein said parenteral administration is selected from the group consisting of subcutaneous administration and intramuscular administration.

James M. Musser et al. Serial No. 08/160,965 Page 16

- 15. (Reiterated) The method of claim 12, wherein said vaccine is administered orally.
- 16. (Reiterated) The method of claim 12, wherein said infection is selected from the group consisting of pharyngitis, tonsillitis, skin infections, acute rheumatic fever, scarlet fever, post-streptococcal glomerulonephritis, sepsis, and toxic-shock-like syndrome.
- 17. (Reiterated) The method of claim 12, wherein said vaccine is administered in multiple doses.